

Appl. No. 10/667,260

Amndt. dated July 26, 2004

Reply to Office action of March 25, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended). A receiving and coupling part, comprising:

a carrier with an opto-electronic transmission and/or reception element, said carrier being embodied as a leadframe;

an opening for inserting said carrier;

a casting material surrounding said transmission and/or reception element;

a coupling region for coupling an optical fiber; and

a cylindrical recess having a first end and a second end, said cylindrical recess having an overall length and a given diameter, said given diameter being constant along said overall length;

said first end of said cylindrical recess containing said transmission and/or reception element; and

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said second end of said recess for receiving and coupling an optical fiber.

Claim 2 (original). The receiving and coupling part according to claim 1, wherein:

said cylindrical recess has a first open end forming said opening for inserting said carrier; and

said cylindrical recess has a second open end forming for receiving and coupling of said optical fiber.

Claim 3 (original). The receiving and coupling part according to claim 1, further comprising:

a wall defining said cylindrical recess;

said cylindrical recess extending along a longitudinal axis;

said opening for inserting said carrier being formed in said wall of said cylindrical recess and extending substantially perpendicular to said longitudinal axis of said cylindrical recess.

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Claim 4 (original). The receiving and coupling part according to claim 1, further comprising an electrically conductive plastic material.

Claim 5 (original). The receiving and coupling part according to claim 1, further comprising a coating of an electrically conductive layer.

Claim 6 (original). The receiving and coupling part according to claim 1, wherein said cylindrical recess has an inner diameter corresponding to an outer diameter of said optical fiber to be coupled.

Claim 7 (currently amended). The receiving and coupling part according to claim 1, wherein said ~~carrier is a~~ leadframe ~~enabling~~ enables said transmission and/or reception element to be electrically contacted.

Claim 8 (original). The receiving and coupling part according to claim 7, wherein:

said cylindrical recess has an optical axis; and

said leadframe longitudinally extends parallel to said optical axis of said cylindrical recess.

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Claim 9 (original). The receiving and coupling part according to claim 7, wherein:

said cylindrical recess has an optical axis; and

said leadframe extends vertically to said optical axis of said cylindrical recess.

Claim 10 (original). The receiving and coupling part according to claim 7, wherein:

said leadframe is curved in an S shape having a region protruding into said cylindrical recess.

Claim 11 (original). The receiving and coupling part according to claim 10, wherein:

said carrier is disposed at said first end of said cylindrical recess; and

said first end of said cylindrical recess enables said casting material to be introduced.

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Claim 12 (original). The receiving and coupling part according to claim 7, wherein said leadframe is planar.

Claim 13 (original). The receiving and coupling part according to claim 12, further comprising:

a cover element; and

a wall defining said cylindrical recess;

said first end of said cylindrical recess accommodating said planar leadframe and being sealed by said cover element; and

said opening for inserting said carrier being formed in said wall of said cylindrical recess.

Claim 14 (currently amended). The receiving and coupling part according to claim 12, further comprising:

a fiber stop ring formed in said casting material;

said fiber stop ring surrounding ~~said integrated~~ a lens; and

said fiber stop ring ~~for~~ preventing a face of said optical fiber from hitting said ~~coupling~~ lens.

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Claim 15 (original). The receiving and coupling part according to claim 1, wherein said casting material forms an integrated lens.

Claim 16 (original). The receiving and coupling part according to claim 1, further comprising:

a double chamber having parallel regions;

a coupling element; and

a plurality of coupling regions;

said opto-electronic transmission and/or reception element being a transmission element;

said coupling element and said transmission element configured in separate ones of said parallel regions; and

said plurality of coupling regions for coupling said coupling element and said transmission element with said optical fiber.

Claim 17 (original). The receiving and coupling part according to claim 1, wherein:

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said transmission and/or reception element is configured on
said carrier; and

said carrier does not have electrical driver circuits or
reception circuits configured thereon.

Claim 18 (original). The receiving and coupling part according
to claim 17, further comprising a monitor diode configured on
said carrier; said carrier having only said monitor diode and
said transmission and/or reception element configured thereon.

Claim 19 (original). The receiving and coupling part according
to claim 17, in combination with a plug housing, wherein:

the receiving and coupling part includes an exterior wall with
structures for fixing the receiving and coupling part to the
plug housing.

Claim 20 (new). A receiving and coupling part, comprising:

a carrier with an opto-electronic transmission and/or
reception element;

an opening for inserting said carrier;

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a casting material surrounding said transmission and/or reception element;

a coupling region for coupling an optical fiber; and

a cylindrical recess having a first end and a second end;

said first end of said cylindrical recess containing said transmission and/or reception element;

said second end of said recess for receiving and coupling an optical fiber;

said carrier being a leadframe enabling said transmission and/or reception element to be electrically contacted; and

said leadframe being curved in an S shape having a region protruding into said cylindrical recess.

Claim 21 (new). A receiving and coupling part, comprising:

a carrier with an opto-electronic transmission and/or reception element;

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an opening for inserting said carrier;

a casting material surrounding said transmission and/or
reception element;

a coupling region for coupling an optical fiber; and

a cylindrical recess having a first end and a second end;

said first end of said cylindrical recess containing said
transmission and/or reception element;

said second end of said recess for receiving and coupling an
optical fiber; and

said casting material forming an integrated lens.

Claim 22 (new). The receiving and coupling part according to
claim 4, wherein said leadframe has ground pins and is
configured such that the receiving and coupling part is
electrically contacted only via said ground pins.

Claim 23 (new). The receiving and coupling part according to
claim 5, wherein said leadframe has ground pins and is

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configured such that the receiving and coupling part is electrically contacted only via said ground pins.

Claim 24 (new). The receiving and coupling part according to claim 22, including receiving sockets for accommodating said ground pins.

Claim 25 (new). The receiving and coupling part according to claim 23, including receiving sockets for accommodating said ground pins.

Claim 26 (new). The receiving and coupling part according to claim 22, wherein the receiving and coupling part is electrically non-conductive or insulated from said leadframe at a location where said leadframe is led out of the receiving and coupling part.

Claim 27 (new). The receiving and coupling part according to claim 23, wherein the receiving and coupling part is electrically non-conductive or insulated from said leadframe at a location where said leadframe is led out of the receiving and coupling part.

Claim 28 (new). The receiving and coupling part according to claim 1, wherein said casting material completely surrounds

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said leadframe and said transmission and/or reception element disposed thereon.

Claim 29 (new). The receiving and coupling part according to claim 1, wherein said optical fiber is inserted into an end of the receiving and coupling part and is a part of an optical plug.

Claim 30 (new). The receiving and coupling part according to claim 1, wherein said transmission and/or reception element is electrically contacted exclusively via said leadframe.